International Seabed Authority

ISBA/18/LTC/L.3

Legal and Technical Commission

Distr.: Limited
6 June 2012
English
Original: French

Eighteenth session
Kingston, Jamaica
16-27 July 2012

Application for the approval of a plan of work for exploration for polymetallic sulphides in the Area by the Institut français de recherche pour l'exploitation de la mer

Summary submitted by the applicant

I. Applicant's details

(a)	Name of applicant	Institut français de recherche pour l'exploitation de la mer (IFREMER)
(b)	Street address	155, rue Jean-Jacques Rousseau 92138 Issy-les-Moulineaux Cedex France
(c)	Postal address (if different from street address)	
(d)	Telephone number	+33 (0)1 46 48 21 09
(e)	Facsimile number	+33 (0)1 46 48 21 20
(6)	Electronic mail address	mineral.resources@ifremer.fr
(g)	Name of applicant's designated representative	Jean-Yves PERROT
(h)	Street address of applicant's designated representative (if different from above)	
(i)	Postal address (if different from street address)	

12-36117 (E) 120612 130612

Please recycle

(j)	Telephone number	+33 (0)1 46 48 22 87
(k)	Facsimile number	+33 (0)1 46 48 22 48
(l)	Electronic mail address	Jean.Yves.Perrot@ifremer.fr
(m)	If applicant is a juridical person, identify:	
	(i) Place of registration; and	(i) Nanterre Register of Companies
	(ii) Principal place of business/ domicile;	(ii) 155, rue Jean-Jacques Rousseau 92138 Issy-les-Moulineaux
	and attach a copy of the applicant's certificate of registration	A copy of the extract from the companies register is attached to section 1 of the application
(n)	Identify the sponsoring State or States	France
(o)	In respect of each sponsoring State, provide the date of deposit of its instrument of ratification of, or accession or succession to, the 1982 United Nations Convention on the Law of the Sea and the date of its consent to be bound by the Agreement relating to the Implementation of Part XI of the United Nations Convention on the Law of the Sea of 10 December 1982.	Signed 10 December 1982 Ratified 11 April 1996 France is a party to the 1982 United Nations Convention on the Law of the Sea. Its instrument of ratification of the Convention was deposited on 11 April 1996. On that same date, it agreed to be bound by the Agreement relating to the Implementation of Part XI of the United Nations Convention on the Law of the Sea of 10 December 1982.

1. The plan of work relating to this application is located along the mid-Atlantic volcanic ridge. It consists of 100 blocks, each measuring 10 km x 10 km, grouped into six clusters of between 8 and 25 blocks each.

2. In accordance with regulation 19 of the Regulations on Prospecting and Exploration for Polymetallic Sulphides in the Area, the applicant has elected to offer an equity interest in a joint venture arrangement and, in accordance with regulation 21, to pay the sum of $500,000 for consideration of its application.

II. Equipment and methods

3. France has several high-seas vessels (the *Atalante* and the *Pourquoi pas?*) which may be used for long-term cruises to study the ocean depths. These vessels are equipped with a range of mapping and sampling tools which can provide data and samples at different scales. These vessels also carry submersibles, both manned (*Nautile*) and remotely operated (*Victor*). Detailed studies are supported with the use of towed (side-scan sonar SAR (Système Acoustique Remorqué)) or autonomous (*Aster-X*) systems capable of making near-bottom measurements (acoustic images, magnetic cards, microbathymetric surveys, etc.). In combination, these systems make possible the application of multiscale and multidisciplinary exploration strategies,

the preparation of detailed studies necessary for the evaluation of mineralization processes and the conduct of environmental impact studies.

III. Geological studies

4. The planned operations include regional prospecting approaches, such as drawing regional bathymetric maps, taking acoustic images of the clusters and identifying hydrothermal sites by detecting plumes in the water column. On a local scale, bathymetric maps and high resolution images of the seafloor will be prepared from a remotely operated vehicle in the active and inactive sites. Manned or remotely operated submersibles will be used to gather samples of rocks, mineralization processes, fluids and fauna. Specific geophysical and drilling operations will be conducted to determine the mineralization geometry and composition in three dimensions. All these operations should make it possible to determine the extent and nature of the different types of mineralization. Data gathered in the field will be used in chemical, mineralogical and isotopic laboratory analyses to clarify the different types of mineralization processes. The data acquired will all be integrated into a geographic information system.

IV. Ecological and environmental studies

5. In accordance with the Regulations on Prospecting and Exploration for Polymetallic Sulphides in the Area, the ecological research programme is designed to establish environmental baselines, to put in place an environmental monitoring programme and to assess the impact of the proposed activities. It will include both benthic and pelagic components to assess the biodiversity of the areas under exploration and to identify the environmental factors shaping these communities. Particular attention will be paid to biological and food-web exchanges between ecosystems. Activities will be carried out at:

(a) The active hydrothermal sites, focusing primarily on chemosynthesis;

(b) The inactive sites, focusing primarily on their trophic resources of photosynthetic origin and possibly also on the metabolic pathways for the oxidation of sulphur and metals.

The biodiversity outside the hydrothermal areas will also be studied during geological exploratory dives. The study of the benthic and pelagic components of the environmental programme also includes the microbial component. The planned research will focus on a qualitative and quantitative assessment of benthic and pelagic assemblages and on analyses of the functioning and dynamics of benthic communities.